

In the Claims

Claims 1 – 35 (Cancelled)

36. (New) A method for preparing a grafted homodetic cyclopeptide forming a framework that defines a grafted upper face and a grafted lower face, comprising:

synthesizing a linear peptide from modified or unmodified amino acids, some of which carry orthogonal protective groups;

intramolecular cyclizing the resulting protected linear peptide;

substituting some or all of orthogonal protective groups with a protected precursor; and

grafting at least one molecule of interest onto one and/or the other face of the framework via an oxime bond.

37. (New) The method as defined in claim 36, wherein the synthesis of the linear peptide, performed on a solid phase, is initiated from a glycine residue whose carboxyl function is anchored to a resin, and cyclizing the resulting linear peptide is performed in solution after release of the resin.

38. (New) The method as defined in claim 36, wherein the synthesis of the linear peptide and cyclization thereof are performed entirely on a solid phase.

39. (New) The method as defined in claim 38, wherein the synthesis of the linear peptide is initiated with an amino acid residue whose side chain is anchored to a resin.

40. (New) The method as defined in claim 36, performed entirely or partially automated on a peptide-synthesizing robot.

41. (New) The method as defined in claim 36, wherein the cyclopeptide is formed from 5, 10 or 14 amino acid residues.

42. (New) The method as defined in claim 40, wherein the cyclopeptide has 10 or 14 amino acid residues and forms two turns, the two turns comprising an (L)Pro-(D)AA and/or (D)Pro-

(L)AA combination, AA being an amino acid, the two turns being separated by three or five amino acid residues, respectively.

43. (New) The method as defined in claim 41, wherein the three or five amino acid residues each have, on a side chain, a chemical function initially protected orthogonally by a protective group, the protective groups being directed alternately to one side and the other of a median plane of the framework, and defining a lower and upper face with respect to that plane.

44. (New) The method as defined in claim 41, wherein the three or five amino acid residues are amino acid residues having an amine side chain.

45. (New) The method as defined in claim 41, wherein orthogonal protective groups of central amino acid residues are identical to one another, orthogonal protective groups of other amino acid residues are identical to one another, the orthogonal protective groups of the central amino acid residues, on the one hand, and the orthogonal protective groups of the other amino acid residues, on the other hand, are different from one another.

46. (New) The method as defined in claim 36, wherein grafting of the framework is begun by substituting the orthogonal protective groups of the framework with a protected precursor of the oxyamine function or a protected masked precursor of the aldehyde function, or with a label.

47. (New) The method as defined in claim 46, wherein the protected precursor is protected 2-oxyaminoacetic acid (OAA).

48. (New) The method as defined in claim 46, wherein the protected masked precursor is a serine residue, the amine and hydroxyl functions of which are protected, and oxidation of which releases an aldehyde group.

49. (New) The method as defined in claim 46, wherein the protected precursor is a precursor of the thiol function.

50. (New) The method as defined in claim 46, further comprising:
substituting the orthogonal protective groups of the lower face with a label, and
substituting orthogonal protective groups of the upper face of the framework with a protected precursor of the oxyamine function or of the aldehyde function.

51. (New) The method as defined in claim 46, further comprising:
substituting the orthogonal protective groups of the lower face of the framework with a protected precursor of the oxyamine function, and
substituting the orthogonal protective groups of the upper face of the cyclopeptide with a protected masked precursor of the aldehyde function.

52. (New) The method as defined in claim 46, further comprising:
substituting the orthogonal protective groups of the upper face of the framework with a protected precursor of the oxyamine function, and
substituting the orthogonal protective groups of the lower face of the cyclopeptide with a protected masked precursor of the aldehyde function.

53. (New) The method as defined in claim 46, wherein oxyamine or aldehyde functions generated from the precursors, previously deprotected, are reacted with one or several molecules of interest or with an intermediate molecule carrying an aldehyde or oxyamine function, respectively.

54. (New) The method as defined in claim 53, wherein the molecules of interest are identical to or different from one another.

55. (New) The method as defined in claim 53, wherein the molecules of interest are selected from the group consisting of nucleic acids, peptides, oligosaccharides, or organic molecules.

56. (New) The method as defined in claim 55, wherein at least one of the molecules of interest is the cyclopentapeptide c(RGDfK) (SEQ ID NO: 1).

57. (New) The method as defined in claim 55, wherein the oxyamine function of the precursor located on the framework is reacted with at least one molecule of interest carrying an aldehyde function, and the precursor of the aldehyde function located on the framework is oxidized and the reaction is continued by bringing the framework into contact with a molecule of interest or an intermediate molecule carrying an oxyamine function.

58. (New) The method as defined in claim 53, wherein the intermediate molecule carries an oxyamine function capable of reacting with the aldehyde function(s) located on the framework, and alternately carries a precursor of at least one aldehyde function.

59. (New) The method as defined in claim 38, performed entirely or partially automated on a peptide-synthesizing robot.

60. (New) A grafted homodetic cyclopeptide, obtained by the method as defined in claim 36.

61. (New) The grafted homodetic cyclopeptide as defined in claim 60, grafted on one of its faces with a ligand of integrin $\alpha v \beta 3$ comprising peptides derived from cyclo(RGDfK) (SEQ ID NO: 1) and/or cyclo(RGDyK) (SEQ ID NO: 2), which are ligands of integrin, and on the other of its faces with an KLAKKLAK (SEQ ID NO: 3) apoptogenic peptide, a known therapeutic doxorubicin molecule, or a protein that is toxic at the intracellular level.

62. (New) The grafted homodetic cyclopeptide as defined in claim 60, grafted on one of its faces with a ligand of integrin $\alpha v \beta 3$, comprising peptides derived from cyclo(RGDfK) (SEQ ID NO: 1) and/or cyclo(RGDyK) (SEQ ID NO: 2), which are ligands of integrin, and on the other of its

faces with a detectable molecule of the chromophore, biotin, fluorophore, radioemitter type, or a precursor.

63. (New) The grafted homodetic cyclopeptide as defined in claim 60, grafted on one of its faces with carbohydrate derivatives and on the other face with one or several T-dependent epitpic peptides, one or several cytotoxic peptides, one or several therapeutic organic molecule(s), or a protein that is toxic at the intracellular level.

64. (New) The graft homodetic cyclopeptide as defined in claim 60, grafted on one of its faces with carbohydrate derivatives and on the other face of the framework with one or several chromophore(s), one or several biotin(s), one or several fluorophore(s), one or several radioemitter(s), or a chemical precursor group or ligand.

65. (New) The grafted homodetic cyclopeptide as defined in claim 60, grafted on one face with B-dependent epitopes of the carbohydrate type, or T-dependent epitopes, and an immunoadjuvant.

66. (New) A therapeutic or diagnostic composition, comprising a grafted homodetic cyclopeptide as defined in claim 60.

67. (New) A method of treating cancer comprising administering a therapeutically effective amount of a composition as defined in claim 66 to a patient.

68. (New) A method of treating cancer comprising administering a therapeutically effective amount of a composition as defined in claim 66 for the suppression of neoangiogenesis.